## **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019408 Address: 333 Burma Road **Date Inspected:** 22-Jan-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Lv Li Qing **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

BAY # 14

#### **ULTRASONIC TESTING**

ZPMC NWIT No: 08262

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the length previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an (UT) report on this date. The members are identified as deck panel. The weld designations are as follows:

SEG3009S-031, 007, 030, 006, 027, 003, 026, 002 SEG3011U-002

This QA Inspector randomly observed the following work in progress.

#### **OBG 14EAST**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 201087 performing the Shielded Metal

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Arc Welding process on weld 189 located at PCMK SEG3019BB. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2737.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066422 performing the Shielded Metal Arc Welding process on weld 125 located at PCMK SEG3019BB. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2737.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070007 performing the Shielded Metal Arc Welding process on weld 169 located at PCMK SEG3019BB. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2737.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 201087 performing the Shielded Metal Arc Welding process on weld 189 located at PCMK SEG3019BB. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2737.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 217805 performing the Flux Cored Arc Welding process on weld 194 located at PCMK SEG3019P. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066097 performing the Shielded Metal Arc Welding process on weld 252 located at PCMK SEG3019Q-1. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044830 performing the Flux Cored Arc Welding process on weld 323 located at PCMK SEG3019D-1. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-FCAW-3G (3F)-ESAB-Repair-Fcm. Critical weld repair report identified as B-CWR2678.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066882 performing the Flux Cored Arc Welding process on weld 094 located at PCMK SEG3019G. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2232-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066471 performing the Flux Cored Arc Welding process on weld 167 located at PCMK SEG3019M. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068501 performing the Flux Cored Arc Welding process on weld 021 located at PCMK SEG3019S. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

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This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as floor beam (FB 3272) and floor beam (FB3287). Distortion appeared to be caused by welding. Weld number identified as SEG3019M-012, 013. ZPMC Quality Control (QC) inspector identified as Mr. Lv Li Qing was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-10087.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070006 performing the Shielded Metal Arc Welding process on weld 182 located at PCMK SEG3019E-1. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2677.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.







# **Summary of Conversations:**

No significant conversations were reported on this date.

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials

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for your project.

**Inspected By:** Utekar, Shrikant Quality Assurance Inspector

**Reviewed By:** Patterson,Rodney QA Reviewer